

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 13-15, 17-22 and 24 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Hirota et al. and Claim 23 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hirota et al. in view of Shinzawa et al. Claims 1-12 and 16 have been canceled, without prejudice, and thus, Claims 13-15, 17-21 and 24 remain active.

Considering first then the rejection of Claims 13-15, 17-22 and 24 under 35 U.S.C. § 102(e) as being anticipated by Hirota et al., it is to be noted that Claim 13 has now been amended to include the limitations regarding the determination of the mass of soot based upon the equation now set forth therein, which is based from the discussion appearing at page 7, lines 10-14 of the present application for the purpose discussed at page 7, line 23 - page 8, line 6 and for obtaining the object of the invention as discussed in the Summary of the Invention. Insofar as there is no teaching or disclosure in Hirota et al. of the equation claimed for determination of the massive soot as presently claimed, and since none of the references of record rectify this deficiency, it is submitted that Claim 13 patentably defines over the prior art. Based upon the dependency of Claims 14 and 15 as well as Claims 17-21 from Claim 13, it is submitted that such dependent claims also merit indication of allowability. In addition, in view of the fact that the limitations now incorporated into Claim 13 have also been added to independent Claim 24, it is submitted that Claim 24 also merits indication of allowability.

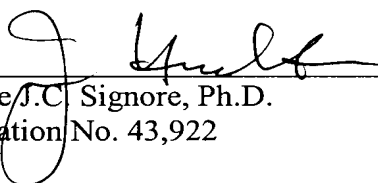
Considering next then the rejection of Claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Hirota et al. in view of Shinzawa et al., it is submitted that there is no teaching or disclosure in Shinzawa et al. or in any of the remaining references of record of the

limitations now added to Claims 13 and 24. It is therefore submitted that Claim 23 also merits indication of allowability.

In view of the foregoing, an early and favorable Office Action is believed to be in order and the same is hereby respectfully requested.

Respectfully submitted,

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